

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claim 2, 4, 7, 11, and 16 have been amended. Claims 2 and 4 have been amended solely in the interests of clarity, and not for reasons related to patentability. Claims 7, 11, and 16 have been amended to place these claims in independent form. The currently pending claims are all now in condition for allowance.

ALLOWABLE SUBJECT MATTER

Claims 1 and 3 have been allowed. Applicant appreciates the indication of allowability.

Claims 7, 11, 12, 16, and 17 are indicated as being allowable if rewritten in independent form including all limitations of the base claim and any intervening claims. Applicant again appreciates the indication of allowability. Claims 7, 11, and 16 have been re-written in independent form including all limitations of the base claim, and thus are currently in condition for allowance, along with dependent claims 12 and 17, which depend from claims 11 and 16, respectively.

35 U.S.C. '103 CLAIM REJECTIONS

The Examiner has rejected claims 2, 4, 5, 6, 8, 9, 10, 13-15, and 18-19 as being unpatentable over applicant's admitted prior art fig. 5 in view of Derwent Publication No. 1996-404860, which is a Japanese Patent No. JP 7050674 invented by Taniguchi Ikuo (hereinafter "Aikuo").

With respect to these claims, as amended, Applicant traverses this rejection.

THE PRESENT INVENTION

Overall system efficiency (i.e., power use reduction) is maximized in a system that transmits modulated signals by maximizing the randomness of the total signal to be transmitted, since increased randomness of the data pattern results in a lower peak-to-average power ratio. The present invention achieves this goal by increasing the randomness of data within the unused portions of fixed length master frames comprising one or more variable length frames, such as are common in connection with video data.

Ikuo

The abstract of Ikuo teaches inserting a pseudo-random signal into data in a continuous packet in order to improve system reliability. Pseudo-random signals are inserted into a fixed-length packet on the transmission side of a communication system. The inserted signals are then processed on the reception side of the signal by combining stored pseudo-random patterns of consecutive packets, determining the number of abolished packets, and comparing with a table. This method is used to improve the reliability of the data on a continuous packet transmission system.

THE EXAMINER HAS NOT SET FORTH A PRIMA FACIE CASE OF OBVIOUSNESS AS THERE IS NO MOTIVATION OR SUGGESTION TO COMBINE THE IKUO REFERENCE WITH THE TEACHINGS OF FIGURE 5 OF APPLICANT'S SPECIFICATION

The Examiner has combined Ikuo, of which only an abstract is in English, with the prior art Figure 5 of Applicant's specification in order to reject several claims as obvious. Ikuo appears to teach improving reliability in a communication system that uses a fixed-length packet transmission protocol by using pseudo-random data to perform a type of error checking/correction process. Applicant respectfully traverses this rejection. First of all, claims 2, 4, 5, 8, and 13 recited using random data, not pseudo-random data. Ikuo teaches inserting pseudo-random data into continuous

data packets. Pseudo-random binary data appears random, but is, in fact, deterministic and is generated by a finite computation.

Furthermore, the present invention has nothing whatsoever to do with error checking or correction.

Most importantly, however, Ikuo deals with packet-switched network transmission protocol details, whereas the present invention has nothing whatsoever to do with network transmission protocol details. The present invention concerns the randomness of data within a master frame of digital video data or the like. This has nothing to do with the network level protocol used to transmit that data. If the master frame data is being transmitted over a packet-switched network, then the data will be transmitted in packets. The network may even be a variable length packet-switched network that uses the technology disclosed in Ikuo. However, that has nothing to do with what applicant claims as its invention. For instance, the network that is used to transmit the digital video data just as well may be a circuit-switched network that does not employ AA packets and, therefore, could not employ the technology disclosed in Ikuo.

The subject matter of Ikuo simply is not relevant to what the Applicant is claiming as the invention. Ikuo suggests inserting pseudo-random packet into variable length packets to help with error detection and correction at the receiving end. It does not suggest inserting random data in master frames to reduce peak to average power ratio. Thus, the combination of Figure 5 and Ikuo, if one is even suggested (which applicant disputes, in any event), results in the transmission of conventional master frames (as disclosed in the background section of the present

application) over a variable length packet-switched network bearing pseudo-random bits in the packets. That is not the present invention as claimed.

Furthermore, since the teaching of Ikuo of inserting pseudo-random bits into packets of a packet-switched network is utterly irrelevant to any rational reason for inserting random data into the master frames of video data or the like, there is nothing in Ikuo that suggests the present invention.

In short, the Office is assuming that the teaching of inserting pseudo-random data in variable-length packets of a packet-switched network to assist in error detection and correction either (1) is the same as or (2) at least leads one to the concept of inserting random data into master frames of video type data and the like. However, the two concepts are so inapposite that any such conclusion is clearly erroneous

Turning now to the claims, claim 2 and claim 4 each recite:

...filling said at least one unused bit with random data, whereby randomness is increased in said first number of bits.

Claim 5 recites:

... filling a fixed length master frame with said plurality of variable length data frames, a plurality of synchronization patterns, and a plurality of random data.... .

Claims 8 and 13 each recite:

...wherein broadcasting efficiency is increased in said digital broadcasting system by increasing randomness in said fixed length master frame.

Claim 18 recites:

...a plurality of synchronization patterns and a plurality of random data bits to derive a plurality of variable length data frames....

These claim elements are not taught in Applicant's admitted prior art Figure 5, or in Ikuo, as discussed at length above.

Because the combination of Applicant's disclosed prior art and Ikuo fails to teach or suggest all of the claim limitations of claims 2, 4, 5, 8, 13 and 18, the obviousness rejection should be withdrawn.

CONCLUSION

Pending claims 1-19 are currently in condition for allowance. Applicant respectfully requests reconsideration and issuance of the subject application. If any issues remain that preclude issuance of this application, the Examiner is urged to contact the undersigned attorney.

Respectfully submitted,

3.1.04

Date



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